COHESION: EXPLORING THE MYTHS AND OPENING THE VEIL

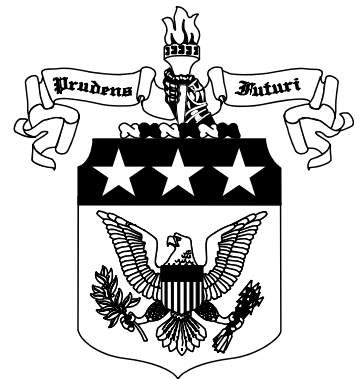BY

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COHESION: EXPLORING THE MYTHS AND OPENING THE VEIL

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ABSTRACT

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Much has been written, argued, and contemplated of Clausewitz's concept of "center of gravity." This paper focuses on the unique role of cohesion and its relationship to a center of gravity. Clausewitz states in *On War*: "The fighting forces of each belligerent – whether a single state or an alliance of states – have a certain unity and therefore some cohesion. Where there is cohesion, the analogy of the center of gravity can be applied." If the presence of cohesion points toward the enemy's center of gravity as Clausewitz indicates, one must ask – What is cohesion? If one cannot logically define, identify, and target enemy cohesion – How can it be attacked?

This paper promulgates four cognitive systems involved in social cohesion: ideas, values, relationships, and communication. By understanding cohesion's theoretical structure, there is an increased likelihood efforts to attack cohesion will achieve the intended effect. The paper reviews the current and ambiguous state of academic research on cohesion and proposes a simple theoretical model of cohesion's fundamental components. The intent is to distill the infinite complexity of social cohesion into a manageable framework of four interrelated systems allowing strategic leaders to recognize, observe and influence social cohesion.

COHESION: EXPLORING THE MYTHS AND OPENING THE VEIL

The complexity of the modern world is confounding. The abundant flow of information through a vast, global network of interconnected actors overwhelms one's ability to distill the essence of important issues. The 24-hour news cycle; hand-held, blue-tooth, wireless technology; instant text messaging; email; and web-based, collaborative, work-productivity applications bombard one's sensory perceptions. People struggle to filter bits and bytes of information into manageable cognitive building blocks. Humans strive to find consensus in a cacophonous, information-based, environment. The profusion of ideas, propagated by an explosion in communication technologies, has altered the course of human interaction.

Warfare is a subset of human social interaction. Carl von Clausewitz established the sociological nature of warfare when he stated, "*war is thus an act of force to compel our enemy to do our will.*"[1] Warfare places the elements of two or more entities' power sources against one another in a contest of collective wills. In spite of the myriad physical, kinetic, scientific, and measureable properties of warfare, war's objectives and effects ultimately reside in the sociological and psychological human dimension.

Much has been written, argued, and contemplated of Clausewitz's concept of "center of gravity." This paper will focus on the unique role of cohesion and its relationship to a center of gravity. Clausewitz states: "The fighting forces of each belligerent – whether a single state or an alliance of states – have a certain unity and therefore some cohesion. Where there is cohesion, the analogy of the center of gravity can be applied."[2] The U.S. Marine Corps, strong adherents to the Clausewitzian nature of war, defines the doctrinal concept of maneuver warfare as, "…*a warfighting*

philosophy that seeks to shatter the enemy's cohesion through a variety of rapid, focused, and unexpected actions which create a turbulent and rapidly deteriorating situation with which the enemy cannot cope."[3] If the presence of cohesion points toward the enemy's center of gravity as Clausewitz indicates, and if the U.S. Marine Corps's overarching warfighting philosophy is to shatter that cohesion, one must ask – What is cohesion? If one cannot logically define, identify, and target enemy cohesion – How can it be shattered?

This paper promulgates four cognitive systems involved in social cohesion. At its very essence, cohesion is a system of systems. By understanding cohesion's theoretical structure, there is an increased likelihood efforts to attack cohesion will achieve the intended effect. Additionally, because cohesion is an omnipresent social phenomenon, an improved understanding informs one's ability to manage and nurture cohesive development within any organization. The paper also reviews the current and ambiguous state of academic research on cohesion. The author proposes a simple theoretical model of cohesion's fundamental components – ideas, relationships, values and communication. The intent is to distill the infinite complexity of social cohesion into a manageable framework allowing strategic leaders to recognize, observe and influence social cohesion. Lastly, the author will use the theoretical model to analyze Clausewitz's construct of center of gravity and look at other military phenomena where cohesion is involved.

The reader will comprehend more fully the ubiquitous presence of cohesion in all social endeavors. The reader will gain insight regarding how to attack an adversary's cohesion using the center of gravity construct. The reader also will gain a better

understanding of the theoretical components facilitating cohesive development within any organization.

The Ambiguous Nature of Cohesion

Cohesion is not easily understood, defined, or measured. An in-depth review of academic literature indicates a clear lack of consensus regarding the fundamental nature of cohesion. Bollen and Hoyle claim there is "…substantial disagreement about the precise nature of the construct [cohesion]…" and that "…there is still considerable ambiguity surrounding its definition and measurement."[4] Friedkin proposes, "The main source of confusion is a proliferation of definitions of social cohesion that have proved difficult to combine or reconcile."[5] Guy Siebold from the Army Research Institute for the Behavioral and Social Sciences posits while cohesion has been widely researched, "…it remains problematic as a concept and in its measurement."[6] Moody and White capture the elusive nature of cohesion when they state:

> We study 'cohesion' in almost all our substantive domains, and in its ambiguity, it seems to serve as a useful theoretical placeholder. Ubiquity, however, does not equal theoretical consistency. Instead, the exact meaning of cohesion is often left vague, or when specified, done in a particularistic manner that makes it difficult to connect insights from one subfield to another.[7]

Cohesion's ambiguity and ubiquity confounds current theoretical research. Contemporary sociologists have returned to a definition put forth in 1950, in part, to establish common ground and equilibrium. This definition proposes that cohesion is "the resultant forces" causing members to remain in a group.[8] Yet this simple definition remains problematic. How does one measure and comprehend the myriad "resultant forces" affecting individual desires to remain as part of a group? Is the "resultant forces"

similar for each member of the group? Does group membership itself influence and alter the "resultant forces" contributing to the collective environment?

A brief review of the historical academic literature clearly indicates widespread lack of agreement concerning the very nature and definition of cohesion. It is prescient that one of the earliest pioneers in social cohesion research stated: "social solidarity is a wholly moral phenomenon which by itself is not amenable to exact observation and especially not to measurement."[9]

The Importance of Cohesion

Regardless of its frustrating and elusive nature, cohesion plays a critical role in a broad spectrum of social phenomena.[10] Conceptually, it is simple to understand the importance of humans working together for the collective benefit of society. From the dawn of civilization, hunter gatherers used teamwork and collaboration to kill wild beasts for food. Early humans divided functional responsibilities among the clan to provide for the collective welfare of the group.[11]

Military researchers study cohesion's effects on unit performance.[12] "Cohesion is commonly considered by military leaders and social scientists as a crucial factor in contributing to the effectiveness of individuals and groups in battle…."[13] Military researchers study personnel assignment policies, training, and combat operations to discover useful methodologies contributing to unit cohesion.[14] Military research on cohesion is extensive and establishes a strong link between cohesion and unit performance. Strong unit cohesion directly relates to improved retention, readiness, and individual well-being.[15]

While the study of cohesion is important to military phenomena, it is equally significant in other sociological endeavors. In higher education, research indicates that cohesion is "…the most important strategic dynamic for strengthening schools and universities for their role in the knowledge revolution."[16] In the academic field of organizational culture, cohesion of the group is affected by organizational values and value congruency.[17] In studies of trust between leader and follower and organizational trust within larger corporate entities, there is a direct correlation between trust and cohesion.[18] Bollen and Hoyle believe "…the centrality of cohesion as a mediator of group formation, maintenance, and productivity has led some social scientists to deem it the most important small group variable."[19]

Given cohesion's importance and ubiquity, it is crucial that strategic leaders understand not only its nature, but the factors involved with its development. The extensive research conducted by the Defense Management Study Group on Military Cohesion emphasizes: "In all the literature, the one constant is the finding that leadership is the most critical element in achieving cohesive, effective organizations."[20] Given cohesion's theoretical ambiguity, how does a leader understand and guide its development? How does a leader identify an adversary's cohesion and apply the operational art of warfare to defeat the enemy?

<u>The Complex, Adaptive and Systemic Nature of Cohesion</u>

Friedkin accurately proposes that much of the "definitional confusion in the social cohesion literature is symptomatic of the complexity involved in reciprocally linked individual-level and group-level phenomena."[21] The reciprocal and dynamic interplay of individual attitudes and behaviors within a community is a continuous process. Hence,

assuming a measurement of cohesion on a defined community can be obtained, it can

also change rapidly. The interdependent and dynamic characteristics of cohesion

clearly indicate that cohesion is a complex adaptive system. Robert Jervis succinctly

explains:

> We are dealing with a system when (a) a set of units or elements is interconnected so that changes in some elements or their relations produce changes in other parts of the system and (b) the entire system exhibits properties and behaviors that are different from those of the parts. The result is that systems often display nonlinear relationships, outcomes cannot be understood by adding together the units or their relations, and many of the results of actions are unintended. Complexities can appear even in what would seem to be simple and deterministic situations.[22]

Because cohesion involves multiple exchanges between two or more people, the

complexity of interactions dynamically affects the community, often in unanticipated

ways. When one considers the degree and dynamics of interactions producing cohesion

in a nine-man rifle squad, the level of complexity is discernable. When one considers

the degree and dynamics of interactions between two nation states attempting to shatter

one another's will, the level of complexity becomes incomprehensible. Jervis concludes

his explanation of the complexity of systems by stating:

> Despite the familiarity of the idea that social action forms and takes place within a system that is familiar, scholars and statesmen as well as the general public are prone to think in nonsystemic terms. This is often appropriate, and few miracles will follow from thinking systematically because the interactive, strategic, and contingent nature of systems limits the extent to which complete and deterministic theories are possible. But we need to take more seriously the notion that we are in a system and to look for the dynamics that drive them. . . Exploring them gives us new possibilities for understanding and effective action; in their absence we are likely to flounder.[23]

A deterministic theory of cohesion is not possible. It is too complex. However, the

"dynamics that drive" cohesion are discernable. "Analytically, solidarity [or cohesion] can

be partitioned into an ideational component, referring to member's identification with a collectivity, and a relational component, referring to the observed connections among members of the collectivity."[24] Adding to these two components first identified by Durkheim,[25] values also play a fundamental role and establish a triad of systems upon which cohesion builds. Lastly, without communication, ideas cannot be shared and relationships cannot be established. Individuals transmit ideas from one person to another via the act of communication. The communication cycle is incomplete until feedback is reciprocated between individuals. At both ends of the communication channel, the individual encodes and decodes information using filters such as knowledge, attitudes and values.[26] It is within this dynamic, largely communicative system of systems, that social cohesion is established. Hence, cohesion is an interdependent, complex and adaptive system involving *information, relationships, values* and *communication*. By exploring the four fundamental components, a basic model can be established to distill the complexity of cohesion into manageable portions. Identifying cohesion as a system of four interdependent subsystems allows the observer to perceive the interactions among ideas, people, values, and communication that yield cohesion.

The Role of Ideas

In a provocative article, Ralph Peters expertly guides the reader on a journey through history identifying tectonic moments when the explosion of information radically influenced world behavior. When the Gutenberg Press, the telegraph, and the internet exponentially increased information distribution, relationships among people were radically altered. Peters states:

Of all the dangers globalization brings, none is so immediate, so destabilizing, and so irresistibly contagious as the onslaught of information – a plague of ideas, good and bad, immune to quarantine or ready cures, under whose assault those societies, states and even civilizations without acquired resistance to informational disorders will shatter irreparably.[27]

Less apocalyptic but equally provocative, Wheatley states that "it is information that gives order, that prompts growth, that defines what is alive. It is both the underlying structure and the dynamic process that ensure life."[28] Ideas are the sustaining food allowing social cohesion to exist. While values, relationships, and communication are intricately woven into the complex and adaptive process, it is information that provides energy and allows the cohesion process to move forward. Wheatley emphasizes this point when she states: "Information is an organization's primary source of nourishment; it is so vital to survival that its absence creates a strong vacuum."[29] Ideas are the fuel bringing people together. "Information organizes matter into form, resulting in physical structures. The function of information is revealed in the word itself: in-*formation.*"[30]

A current IBM Global Business Consulting television commercial humorously depicts the important role that ideas and organizational structure play in corporate innovation. The TV spot begins with a man walking into a large dark room. He turns on the light switch and discovers his colleagues lying on mats on the floor in quiet, corporate solitude – similar to kindergarten school children taking a noon-time nap. He asks, "What are you guys doing?" One person responds, "We're ideating!" "Ide… what?" He incredulously responds. The dialogue continues as floor-bound, horizontal "ideators" deliver in staccato succession, "We need to rethink the way we do things. Structure! Process! We need to innovate!" When the perplexed intruder inquires, "How?" A woman replies, "We haven't ideated that yet."[31]

While admittedly tiresome, the business consulting mantra of "innovation" is a window leading to the very essence of the interdependent role of ideas and relational structure in organizational cohesion. Daft offers the following case study and commentary:

> In response to the question, 'What must one do to survive in the twenty-first century?' the top answer among 500 CEOs surveyed by the American Management Association was 'practice creativity and innovation.' However, only 6 percent of the respondents felt that their companies were successfully accomplishing this goal. There's an innovation deficit in many of today's organizations, but leaders are beginning to respond by adopting structures and systems that promote rather than squelch the creation and implementation of new ideas.[32]

The "plague of ideas" has incubated information-based realms that did not exist 30 years ago. On the technological end of the spectrum is cyberspace. Cyberspace consists primarily of networked computers, databases and other "connected" information entities.[33] A slightly broader, although sometimes synonymous term, infosphere, encompasses all other forms of information based activity such as broadcast and print media; corporate, government, and military command, control, communications, intelligence, surveillance, and reconnaissance (C4ISR) systems.[34] Another information realm coined by Pierre Teilhard de Chardin in 1925 is noosphere. Similar to a geosphere, Teilhard infers that the noosphere is a collection of human consciousness. Arquilla and Ronfeldt state:

> According to Teilhard, forces of the mind have been creating and deploying pieces of the noosphere for ages. Now, it is finally achieving a global presence, and its varied 'compartments' are fusing. Before long, a synthesis will occur in which peoples of different nations, races, and cultures will develop consciousness and mental activity that are planetary in scope, without losing their personal identities.[35]

Undeniably, the "networked" world of the last 30 years has exponentially increased the availability of information. People commonly assert that "information is power." Ideas, in the form of information, are merely a source of power. As previously identified by Wheatley, information is "nourishment."[36] An energy bar itself is powerless. It is only when an athlete consumes the bar that the latent power can be manifested through the muscles to facilitate exertion by the athlete. Ideas themselves must manifest and interact within the other three systemic components of cohesion to realize their latent potential.

The Role of Relationships

Much of the confusion surrounding theoretical research on cohesion stems from the natural confluence, or interdependent nature, of the ideational and relational systems.[37] Leading social science researchers carefully parse words to highlight differences of opinion regarding the necessity to study cohesion's components independent of one another, or as a multidimensional construct. Friedkin states, "The idea that effects of structure [relational] exist, independent of social process [ideational], must be abandoned if we are to develop a compelling theory of social network effects."[38] Yet Moody and White state, "conflating relational and ideational features of social solidarity in a single measure limits our ability to ask questions about how the relational component of solidarity affects, or is affected by, ideational factors."[39] Moody and White then offer an exceptional construct and theory for "structural cohesion," but it ultimately accounts only for the connections linking individuals together, not the ideas and values that undoubtedly play a crucial role in the establishment of any relationship.

In spite of its complexity, any understanding of cohesion must take into account that the ideational and relational systems are inextricably connected.

While contemporary researchers disagree on theoretical methodology, they do agree on the critical role of relationships in building cohesion. Friedkin states, "If there is a beating heart in the field of group dynamics it is nurtured by the idea that positive interpersonal interactions are at the foundation of social processes."[40] Wheatley reinforces the centrality of relationships in organizations when she states, "Leadership is *always* dependent on the context, but the context is established by the *relationships* we value. We cannot hope to influence any situation without respect for the complex network of people who contribute to our organizations."[41]

Two elements contribute to the fundamental importance of the relational system of cohesion. First, it is in the context of relationships, where individuals interact as a community to achieve common purpose. It is in this realm where ideas, values, inspiration, creativity, motivation, and conflict intermingle. Individual purpose, meaning, and sense of belonging are derived in the realm of relationships. It is in this realm where ideas collide with groups of people. Second, how relationships are organized (i.e. organizational structure) contributes greatly to the efficiency and resiliency of the organization. Companies wishing to keep pace with the information revolution adapted vertical organizational hierarchies – which worked well in the non-networked business environment – into horizontal based organizations designed to "easily communicate and coordinate their efforts, share knowledge, and provide value directly to the customers."[42] The entire field of network theory and nodal analysis speaks directly to the relational component of cohesion. In a theoretical world of near perfect knowledge, any

organization can be mapped to identify how individuals connect and communicate with other individuals in the organization. From that map, key nodes, or "connectors of information and people", can be identified. In its entirety, we have a theoretical picture of the overall network facilitating cohesion based on the relational structures exchanging information.

<u>The Role of Values</u>

Values are the foundation upon which ideas and relationships interact, via the process of communication, to produce social cohesion. *The American Heritage Dictionary* simply defines values as "a principle, standard, or quality considered worthwhile or desirable."[43] Daft offers a broader definition: "**Values** are fundamental beliefs that an individual considers to be important, that are relatively stable over time, and that have an impact on attitudes and behavior."[44] Pentland offers a holistic description of values when he states:

> The necessity to define man's relationship to other individuals, his relationship to the community, the community's relationship with nature, and the community's relationship with other communities give rise to value systems. These value systems reflect the will to truth and the will to power, and they comprise what many would call norms, mores, and laws. …The value systems that arise from human will and community are the underlying element of power and organization within human society from the most primitive tribe to modern nation states. Values are the gravity that rules the human universe.[45]

Regardless of the definition's simplicity or profundity, values play a critical role in the complex and systemic development of cohesion.

Values govern behavior at multiple levels. At the individual level, "values are internalized so deeply that they define personality and behavior as well as consciously and unconsciously held attitudes. They become an expression of both *conscience* and

consciousness.[46] At the group level, "**Organizational values** are the enduring beliefs that have worth, merit, and importance for the organization."[47] The organization's values quietly organize, guide, and influence individual behavior "to shape every employee into a desired representative of the organization."[48] When individual and organizational values are congruent, individual commitment, satisfaction, and organizational cohesion increases.[49]

The Role of Communication

Communication is a system connecting the ideational, relational, and value systems into a system of systems to produce cohesion. Information is rarely useful in the mind of a single human being. Information shared via the communication process gives birth to new ideas and greater potential. Relationships cannot be established or maintained unless a communicative process links two or more people together. The same is true of values. Corporate vision statements are communicated to establish value-based organizational objectives. If communication does not bind ideas, people, and values together, cohesion will not exist.

The speed of transmitting information has outpaced all other technological achievements in the last 200 years. Until the mid-nineteenth century, the speed of communication was equal to the speed of transportation. A ship or horse-drawn carriage transported a messenger or messages and delivered information to recipients along the path of travel. With the invention of the telegraph, telephone, and undersea cable, written and voice communication surpassed the speed of transportation. The invention of radio and television in the twentieth century expanded communication channels from point to point into audio and audiovisual realms intended for wider

audiences.[50] More recently, the internet and satellite technology increased exponentially the speed and availability of information. One need only turn on cable or network newscasts to view television reporters in the remotest parts of the globe broadcasting live via satellite phone connections. Modern day technology allows individuals and institutions to transmit information rich communication to millions of recipients instantaneously.

The free flow of information via modern day communication technologies does not create a level playing field with regard to influencing public opinion. Transmitted information and ideas reflect "the experiences that have molded the philosophies, ethics, and political conceptions of different peoples."[51] Cultural and value filters significantly affect communication exchanges. Given the complexity involved in exchanging communication, leaders must be cognizant of the continuum of channels available to convey information and accurately select appropriate channels for specified messages.

Face-to-face, telephones, written letters, email, web-based collaboration sites, print media, radio, television, and video conferencing are the primary communication channels available today. "**Channel richness** is the amount of information that can be transmitted during a communication episode."[52] Mediums facilitating the transmission of simultaneous multiple cues, rapid feedback, and a personal focus are preferred.[53] In spite of the technological innovations bombarding our sensory perceptions with information, face-to face and telephone conversations remain the richest channels for communication to take place.[54]

Communication is a dynamic system that connects ideas, values, and people within organizations. Analyzing an enemy center of gravity will lead inevitably to communication systems. Command and control nodes, key leaders, and public communications infrastructure are examples of potential targets related to an enemy center of gravity. Stripping an adversary of the ability to share information, hence make timely decisions, degrades cohesion. Conversely, expanding the availability of information and facilitating appropriate communication channels to share information enhances organizational cohesion.

A Brief Word about Power

Information is not power, it is a source of power. Information is exchanged via communication to forge positive interpersonal relationships that form the foundation of human society. Value systems coalesce firmly held beliefs and people to form "the underlying element of power and organization within human society…."[55] Collectively, the triad of ideas, relationships and values, bound by the process of communication, forms the theoretical basis for cohesion to occur. The product of this process is power.

Much has been written but less understood about power. One can predict with great certainty the effects of power produced from a 500 pound bomb on a specific target, or the effect of 5.56 millimeter bullet hitting a person at 2800 feet per second at a distance of 150 meters, but this is kinetic power governed by the laws of physics. What about the latent power generated by social cohesion and legitimately or illegitimately wielded by leaders? Latent power is resident in any social collectivity. The potential is governed by a loose confederation of values, fueled by information, and bounded by

various communication means. How does organizational power derived from cohesion work? Burns provides some illumination of the issue:

> …I view the power process as one in which power holders (P), possessing certain motives and goals, have the capacity to secure changes in the behavior of a respondent (R), human or animal, and in the environment, by utilizing resources in their power base, including factors of skill, relative to the targets of their power-wielding and necessary to secure such changes. This view of power deals with the three elements in the process: the motives and resources of power holders; the motives and resources of power recipients; and the relationship among all these.[56]

Burns definition provides interesting insights. Any social collectivity has decision makers or "power holders." When motives and values of decision makers are congruent with others in the collectivity, the power derived from cohesion becomes one of many resources available to the decision maker. President Bush had many resources at his disposal when he decided to attack the Taliban in Afghanistan after September 11, 2001. The most visible example of national cohesion was both Houses of the U.S. Congress standing on the steps of the Capitol Building singing "God Bless America." After America unleashed its fury in Afghanistan, the "power recipients" demonstrated a clear resolve and cohesion of their own. While culturally difficult to comprehend, the ideas, values, relationships, and comparatively archaic communication means of the Taliban and Al Qaeda provide the necessary motives and resources to sustain the struggle more than six years later. The U.S. and the Taliban/Al Qaeda are both "power holders." The power relationship between them is best described by Clausewitz as "the collision of two living forces."[57] The collision of war profoundly effects all four systemic components of cohesion. Hence, in war, power ebbs and flows, as two or more entities engage in a cycle of action and reaction that alters the ideational, relational, value and communication systems.

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<u>A Theoretical Model of Cohesion</u>

The model at figure 1 depicts the interrelationships of the four systemic components of cohesion. Values provide the foundation for cohesion to develop. The outward arrows depict the systemic nature of values in any organization. Individual values at times conflict with other individual member's values or the organization's values. Conflict often leads to values incongruence among individuals within in an organization. When this occurs, the organization experiences a loss of cohesion. Relationships are the complex circle of networks joining ideas, people and values together. Conflict and other factors can cause relationships to be severed, resulting in a reduction of cohesion.

Communication is the process used to bind together ideas and people. Miscommunication or lack of communication, influences perception and understanding in the communication process. When this occurs, it can radically alter the relational component of cohesion. Hence, the outward arrows depict the numerous elements of communication that reduce overall social cohesion. Lastly, the constant influx of ideas is necessary for the development and maintenance of social cohesion. Without information, the system of systems will eventually collapse. Ideas are filtered through individual values and shared with others via the communication process. When intentional action on an idea is desired, relationships are established by common purpose. But when information is not available, uncertainty can prevail thus slowing the communication and relationship processes. The lack of ideational clarity degrades cohesion. In today's information rich environment, one challenge is ensuring the right types of information flow into the cohesion process and are not lost due to the cognitive dissonance created by an overabundance of information.

Cohesion is present when ideas are shared via a communication process, between two or more people with a common purpose, supported by shared values. Figure 1 depicts cohesion as an inverted pyramid, resting squarely within the foundational block of values, at the confluence – or balancing point – where ideas, relationships, and communication ultimately converge as a complex and adaptive system of systems. Festinger defines this small pyramid of cohesion as "the *resultant* of all forces acting on the members of a group to remain in the group."[58] It is here that individual member's attitudes and behaviors work collectively to maintain the values, ideas, and relationships that sustain the collective group identity.[59]
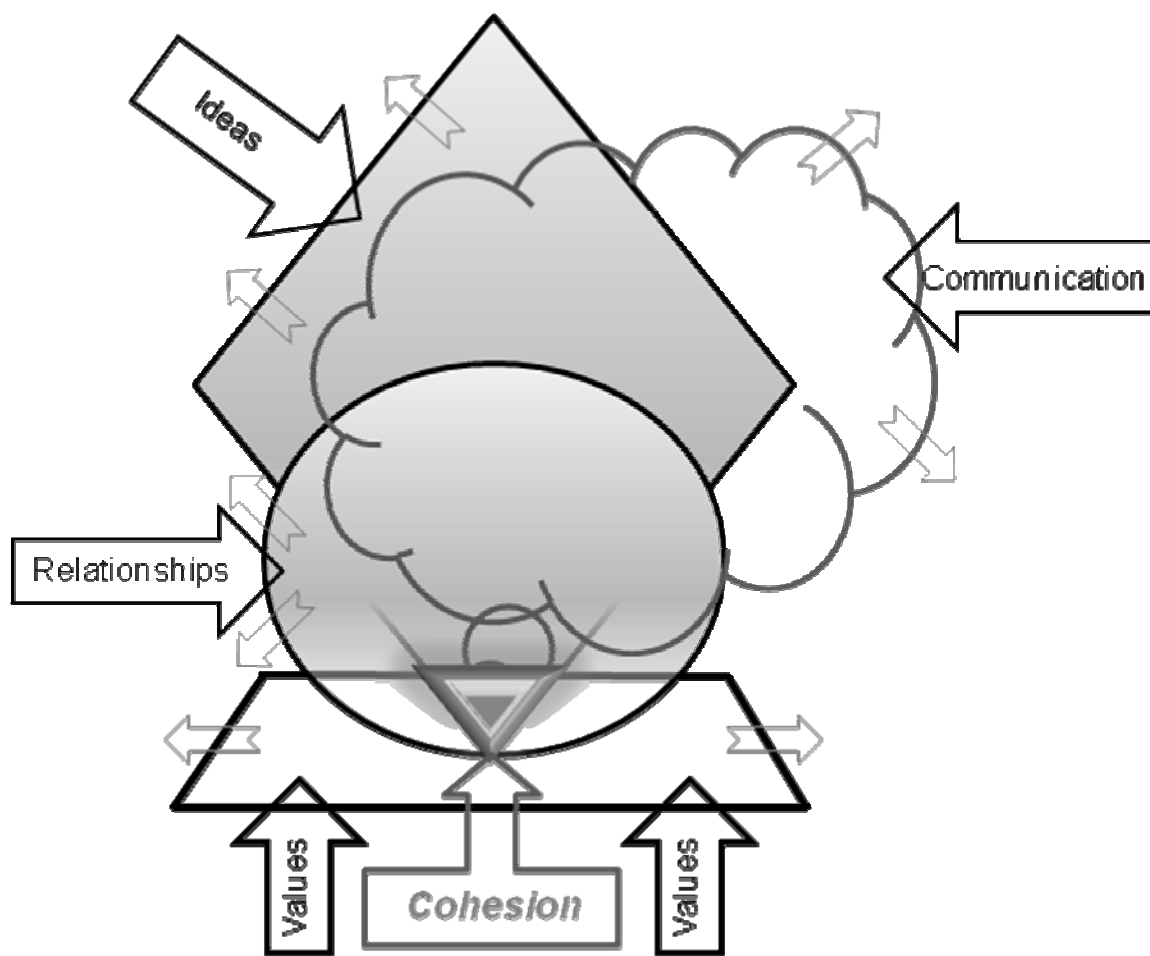

Figure 1: A Theoretical Model of Cohesion

Cohesion's Relationship to Center of Gravity and Other Military Phenomena

If Clausewitz was correct when he stated, "…where there is cohesion, the analogy of the center of gravity can be applied,"[60] are the two constructs synonymous? Given cohesion's ubiquitous nature, can a foundational understanding of its elements benefit understanding in other military phenomena?

Cohesion and center of gravity are not synonymous. Cohesion is an interdependent, complex and adaptive system involving information, relationships, values, and communication. The interdependent process produces collective power to act and binds relationships together as action is taken. The cohesion process requires actors or institutions, formed into networks, to manifest power through action.

The U.S. military, in varying degrees, subscribes to Strange's construct that describes center of gravity as the "primary sources of moral or physical strength, power and resistance."[61] Hence, when Clausewitz describes center of gravity as "the hub of all power and movement, on which everything depends,"[62] and then offers military monarchs, armies, capitals, and alliances as examples,[63] it is these actors and institutions that manifest power derived through the cohesion process. Echevarria clarifies this point when he states, "what all of these various elements have in common [monarchs, armies, etc.] is *not* that they are sources of power, but that they perform a centripetal or centralizing function that holds power systems together and, in some cases, even gives them purpose and direction."[64] Theoretically, social cohesion is the process by which power, both moral and physical, is derived. It is the ultimate source of power. However, it is the network of actors and institutions (i.e. monarchs, armies, capitals, and alliances) exerting influence through ideas, relationships, values and communication that become the center of gravity as defined by Clausewitz and others.

Because cohesion is a social process, it impacts numerous other areas of study applicable to military phenomena and the strategic leader. First, leadership plays a pivotal role in the development of cohesion. Whether small units or large organizations, leaders are the central integrating force ensuring ideas, relationships, communication and values conjoin to establish an organizational culture offering purpose to both individuals and the group. Understanding cohesion aids leaders in filtering the complex social processes at work that aid or hinder organizational development.

Second, the entire field of Information Operations, to include the core capabilities of electronic warfare, computer network operations, psychological operations, military deception and operations security is designed "to influence, disrupt, corrupt or usurp adversarial human and automated decision making…."[65] Regardless of which core capability is used, the intent is to influence an adversary's cohesion by denying or providing information that alters decision making and behavior. Strategic Communication, intended for a much broader audience than Information Operations, also uses the ideational realm to shape cohesion in ways favorable to U.S. interests. Understanding how ideas interrelate with the other elements of cohesion is crucial in integrating Information Operations and Strategic Communication into a coherent and holistic military campaign plan.

Lastly, much is currently being written concerning "network-centric operations." Not an official Department of Defense military term, but at its core, network-centric operations are designed to speed the development of cohesion by linking ideas and people together in a collaborative network. Humans, sensors, platforms, communications, and databases are organized and connected to facilitate rapid

acquisition, filtering, sharing, and dissemination of information. In theory, the rapidity and clarity of the process facilitates faster decision making and the projection of power. Network-centric operations provide the complex communication backbone for cohesion to occur.

Recommendations

A search of the literature conducted for this project yielded a meager reservoir of useful academic research addressing social cohesion as a system of systems affecting military phenomena. Most research covering the topic explores only cohesion's relevance as an indicator of unit performance. The work of social scientists at the U.S. Army Research Institute for the Behavioral and Social Sciences is outstanding, but is small in scale and infrequently published. The Army Research Institute should broaden academic research on cohesion to study the theoretical components vice limiting research to unit performance indicators. The results published by The Defense Management Study Group on Military Cohesion in 1984 remain the most exhaustive work published to date. That study, 24 years ago, offered nine recommendations, five of which remain equally valid for this paper and are incorporated below. The author's research found no evidence that the Department of Defense implemented any of the group's nine recommendations.

The author proposes the following recommendations to improve understanding of cohesion's central role in social and military phenomena:

- The Office of the Secretary of Defense and the Military Departments should fund and direct the study of cohesion to establish a theoretical base of knowledge explaining cohesion's role in military phenomena.

- The Joint Staff and Military Departments should develop concepts and doctrine providing guidance on principles of cohesion and methodologies to develop and protect friendly cohesion while targeting and destroying enemy cohesion.

- The Joint Staff and Military Departments should educate selective Department of Defense civilians and military personnel regarding the nature of cohesion, the four systemic components of cohesion, and methodologies for understanding and influencing complex adaptive systems.

- The Joint Staff and Military Departments should institutionalize considerations of cohesion across the Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel, and Facilities (DOTMLPF) functional processes.

- The Joint Staff and Military Departments should partner with social science and technology researchers to exploit theoretical and scientific understanding of cohesion's role in organizational behavior. Specifically research should focus on the ideational component of cohesion and its impact on Information Operations and Strategic Communication.

Conclusion

Like gravity to the physical universe, the forces of cohesion inextricably affect the social realm. Just as the gravitational trajectory of a single falling object is altered when it collides in mid-air with another object, the cohesion of two belligerent entities changes

when they clash with one another. The opponent who best understands how to influence and degrade his adversary's cohesion is more likely to succeed on the modern battlefield. Comprehending how ideas, relationships, values and communication contribute to national cohesion is a fundamental and critical skill of the strategic military planner.

Likewise, because the dynamics of cohesion are omnipresent, understanding its components improves one's ability to foster cohesion within any organization. The four dynamic systems of cohesion are present in families, Fortune 500 companies and military organizations ranging in size from squads to Combatant Commands. Understanding how the four systems interrelate to produce cohesion is crucial for organizational success.

While much has been written concerning social cohesion, little is agreed upon, but cohesion is simply too important a social phenomenon not to comprehend. The purpose of this paper is to provide a theoretical construct to assist the reader in gaining a better understanding of the forces of cohesion and to apply that comprehension in social endeavors. Clausewitz was correct when he stated, "…Where there is cohesion, the analogy of the center of gravity can be applied."[66] Military planners must comprehend fully the fundamental components of cohesion to accurately identify, target, and destroy an adversary's center of gravity. Conversely, increasing cohesion within friendly organizations enhances survivability. The theoretical model and discussion put forth in this paper hopefully contributes to an increased awareness, appreciation, and clarity concerning the interdependent roles of ideas, relationships, values, and communication to produce cohesion. Cohesion, in turn, provides the necessary strength

and resolve to accomplish organizational objectives – a critical requirement for the

success of any social body.

<u>Endnotes</u>

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[15] Smith and Hagman, 5.

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